

## United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

| APPLICATION N                      | 1O. I  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.      | CONFIRMATION NO. |
|------------------------------------|--------|-------------|----------------------|--------------------------|------------------|
| 10/523,413 02/03/2005              |        | 02/03/2005  | Sabine Calvo         | 0546-1077                | 6297             |
| 466                                | 7590   | 02/24/2006  |                      | EXAMINER                 |                  |
| YOUNG                              | & THOM | PSON        | TRAN, BINH Q         |                          |                  |
| 745 SOUTH 23RD STREET<br>2ND FLOOR |        |             |                      | ART UNIT                 | PAPER NUMBER     |
| ARLINGTON, VA 22202                |        |             | 3748                 |                          |                  |
|                                    |        |             |                      | DATE MAIL ED: 02/24/2006 |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   | Application No.   | Applicant(s) |  |  |  |  |  |
|---|---|--------------|--|--|--|--|--|
|   | 10/523,413  | CALVO ET AL. |  |  |  |  |  |
| Office Action Summary   | Examiner  | Art Unit     |  |  |  |  |  |
|   | BINH Q. TRAN  | 3748         |  |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  |   |              |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |   |              |  |  |  |  |  |
| Status  |   |              |  |  |  |  |  |
| 1) Responsive to communication(s) filed on  |   | •            |  |  |  |  |  |
| ,   | · · · · · · · · · · · · · · · · · · ·   |              |  |  |  |  |  |
| ,   | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is |              |  |  |  |  |  |
| ,   | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.                       |              |  |  |  |  |  |
| Disposition of Claims   |   |              |  |  |  |  |  |
| 4) Claim(s) <u>1-4</u> is/are pending in the application.   | ☑ Claim(s) <u>1-4</u> is/are pending in the application.  |              |  |  |  |  |  |
| 4a) Of the above claim(s) is/are withdraw   | 4a) Of the above claim(s) is/are withdrawn from consideration.  |              |  |  |  |  |  |
| 5) Claim(s) is/are allowed.   |   |              |  |  |  |  |  |
| 6)⊠ Claim(s) <u>1-4</u> is/are rejected.  | Claim(s) <u>1-4</u> is/are rejected.  |              |  |  |  |  |  |
| 7) Claim(s) is/are objected to.   | Claim(s) is/are objected to.  |              |  |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or   | 8) Claim(s) are subject to restriction and/or election requirement.   |              |  |  |  |  |  |
| Application Papers  |   |              |  |  |  |  |  |
| 9)☐ The specification is objected to by the Examine   | r.  |              |  |  |  |  |  |
| 10) The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner.  |   |              |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |   |              |  |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  |   |              |  |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  |   |              |  |  |  |  |  |
| Priority under 35 U.S.C. § 119  |   |              |  |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>   |   |              |  |  |  |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 03/02/2005  | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:                                      |              |  |  |  |  |  |

Application/Control Number: 10/523,413

Art Unit: 3748

## **DETAILED ACTION**

Receipt and entry of Applicant's Preliminary Amendment dated February 03, 2005 is acknowledged.

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-4 are rejected under 35 U.S.C. 102 (a) as being anticipated by Pfendtner et al. (Pfendtner) (Patent Number WO 03/027452 A1 or US Pat. No. 6,912,841).

Regarding claim 1, Pfendtner discloses a system (Figure 1) for treating the exhaust gases (e.g. 51, 52) of a motor vehicle combustion engine (Figure 1), particularly a lean-burn diesel engine or petrol engine, comprising a burnt gas (e.g. 51, 52) exhaust circuit (Figure 1), of the

type in which the exhaust circuit (Figure 1) comprises a burnt gas (e.g. 51, 52) ionization system (e.g. 4, 30) and an ionized air injection system (e.g. 6, 50) upstream and/or downstream of the burnt gas (e.g. 51, 52) ionization system (e.g. 4, 30), which comprises means (e.g. 6, 30, 50) for ionizing the ambient air that convert a portion of the oxygen present in the ambient air to ozone, and of the type in which the air ionization means (e.g. 6, 30, 50) and the burnt gas (e.g. 51, 52) ionization system (e.g. 4, 30) each consist of at least one reactor (30) of the non-thermal plasmagenerating discharge type, characterized in that the burnt gas (e.g. 51, 52) ionization system (e.g. 4, 30) comprises a plurality of reactors (20, 10) arranged in series which successively ionize the burnt gases (e.g. 51, 52) (e.g. See *US Pat. No. 6,912,841*; col. 1, lines 54-67; col. 2, lines 1-67).

Regarding claim 2, Pfendtner further discloses that the various rectors are separate compartments of a single vessel (e.g. See <u>US Pat. No. 6,912,841;</u> col. 1, lines 54-67; col. 2, lines 1-67).

Regarding claim 3, Pfendtner further discloses that the exhaust circuit comprises a catalyst for treating nitrogen oxides, that is positioned downstream of the ionized air injection system (e.g. See *US Pat. No. 6,912,841*; col. 1, lines 54-67; col. 2, lines 1-67).

Regarding claim 4, Pfendtner further discloses that the various rectors are separate compartments of a single (e.g. See *US Pat. No. 6,912,841*; col. 1, lines 54-67; col. 2, lines 1-67).

## Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of five patents:

Application/Control Number: 10/523,413

Art Unit: 3748

Page 4

No. 6959538), Bittenson et al. (Pat. No. 6030506), and Yokota et al. (Pat. No. JP4276167) all

Peugeot et al. (Pat. No. FR 2862340 A1), Caren et al. (Pat. No. 6264899), Cho et al. (Pat.

discloses an exhaust gas purification for use with an internal combustion engine.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Examiner Binh Tran whose telephone number is (571) 272-4865.

The examiner can normally be reached on Monday-Friday from 8:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Thomas E. Denion, can be reach on (571) 272-4859. The fax phone numbers for the organization

where this application or proceeding is assigned are (571) 273-8300 for regular communications

and for After Final communications.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BT

February 18, 2006

Binh Q. Tran

Patent Examiner

Art Unit 3748